

## CLAIMS:

1. An X-ray system having at least one component (12, 2, 31, 32) that is shiftable (moveable) or pivotable along at least one traverse path to at least one predeterminable locking position (Bx), and having a control unit (122) for sensing a speed of the component (12, 2, 31, 32) when displaced or pivoted along the traverse path and for activating a braking means (124) if the speed is below a predeterminable limiting value and the component (12, 2, 31, 32) has reached the locking position (Bx) or shortly before this.  
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2. An X-ray system as claimed in claim 1, comprising a position-sensing unit (123) connected to the control unit (122), for determining the position of the component (12, 2, 31, 32) relative to a locking position and for calculating the speed of the component (12, 2, 31, 32).  
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3. An X-ray system as claimed in claim 2, in which the position-sensing unit (123) is provided to measure a distance by emitting an acoustic or optical signal and to receive the signal reflected from a point of reference (W).  
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4. An X-ray system as claimed in claim 2, in which the control unit is provided to control the breaking means during the slow down of the component with respect to the component's speed and to the component's distance to the locking position.  
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5. An X-ray system as claimed in claim 1, in which the at least one locking position (Bx) is situated within a predeterminable window (A-C) of the traverse path and the speed of the component (12, 2, 31, 32) is sensed within this window.  
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6. An X-ray system as claimed in claim 5, having an audio and/or visual signal transmitter (125) that is connected to the control unit (122), for generating a first signal when speed is below the limiting value and a second signal when speed is above the limiting value.

7. An X-ray system as claimed in claim 1, having a visual display for indicating an instantaneous location of the component (12, 2, 31, 32) relative to a locking position (Bx).

8. An X-ray system as claimed in claim 1, in which the braking means (124) is  
5 an electrical and/or electromechanical brake.

9. An X-ray system as claimed in claim 1, in which the control unit (122) has a microprocessor unit, and a memory in which at least one locking position (Bx) can be stored in the form of a distance from a point of reference.

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10. An X-ray system as claimed in claim 9, in which at least one position of the component (12, 2, 31, 32) that is selected by a user can be stored as a locking position (Bx).

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11. An X-ray stand for an X-ray system as claimed in claim 1, in which the component is a part of the stand that can be displaced and/or pivoted along a traverse path, and/or an X-ray tube (2) or X-ray generator (2, 21) that can be displaced and/or pivoted along a traverse path.

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12. A patient table for an X-ray system as claimed in claim 1, in which the component is a table top (32) that can be displaced and/or pivoted along a traverse path, and/or a film cassette (31) that can be displaced and/or pivoted along a traverse path.